

Nanopublication — Computational Image Analysis - AQC0890

by Arnaud Quercy · Bb Major - Research on Harmony - Variations 7 · 2025

Claim 1: Computational Image Analysis - AQC0890

Computational image analysis [3] of artwork Bb Major [1] - Research on Harmony - Variations 7 (AQC0890) [2] by Arnaud Quercy [2] using k-means clustering method with 10 color extraction parameters. Analysis includes color distribution, texture metrics, brightness/contrast measurements, and spatial pattern characterization. Analysis completed on 2025-12-11.

CONTEXT

Analysis performed according to MMIDS-CMP-2025 [3] includes four metric categories: (1) Color distribution via k-means (10 colors), (2) Texture analysis using Haralick features, (3) Brightness and contrast measurements, (4) Spatial pattern characterization. Source image [5]: 1891x2837 pixels. Analysis date: 2025-12-11.

COLOR ANALYSIS

Rank	Color Hex	%	Family	Name
1	D0AABC	18.7	red	silver
2	B97CB9	18.2	red-violet	orchid
3	C98BC9	11.7	red-violet	plum
4	F08329	11.3	orange	chocolate
5	C99388	10.0	red-orange	rosybrown
6	AA70A4	9.7	red-violet	dusty mauve
7	EAE1D8	6.9	orange	gainsboro
8	5C4F4D	5.7	red-orange	dimgray
9	E1AFDD	4.3	red-violet	thistle
10	281317	3.4	red	very dark gray
11	FEFEF0	0.3	yellow	white [Accent]

Color Families:

Family	%
red-violet	43.9
red	22.1
orange	18.2
red-orange	15.7
yellow	0.3

Accent Colors:

Hex	Family Name	Chroma
FEFEF0	yellow	white 7.3

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.158
Mean Local Roughness	0.032

Metric	Value
Roughness Uniformity	0.033
Edge Density	0.173
Mean Gradient Magnitude	0.256
Gradient Variance	0.116
Gradient Smoothness	0.0
Directional Coherence	0.012
Pattern Complexity	0.119
Pattern Repetition	1.0
Detail Frequency Ratio	0.648
Spatial Variation	0.059
Texture Consistency	0.676

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.619
Brightness Variance	0.158
Brightness Uniformity	0.745
Brightness Skewness	-1.2
Brightness Entropy	6.945
Rms Contrast	0.158
Michelson Contrast	1.0
Weber Contrast	0.371
Mean Local Contrast	0.035
Contrast Uniformity	0.023
Dynamic Range	1.0
Effective Dynamic Range	0.569
Shadow Percentage	6.405
Midtone Percentage	57.114
Highlight Percentage	36.481
Shadow Clipping	0.002
Highlight Clipping	0.003
Tonal Balance	0.0
Fine Contrast	0.018
Medium Contrast	0.043
Coarse Contrast	0.062
Multiscale Contrast Ratio	0.287
Edge Contrast	0.256
Contrast Clustering	0.324

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.704
Color Clustering	0.559
Color Transition Smoothness	0.361
Transition Uniformity	0.241
Sharp Transition Ratio	0.1

Metric	Value
Transition Directionality	0.012
Mean Saturation	0.342
Saturation Variance	0.046
Low Saturation Ratio	0.453
Medium Saturation Ratio	0.421
High Saturation Ratio	0.126
Saturation Clustering	0.998
Hue Concentration	0.812
Complementary Balance	0.0
Analogous Dominance	0.827
Temperature Bias	0.749

Methodology

This analysis employs standardized computational methods for objective image characterization. Color extraction uses k-means clustering algorithm. Texture analysis applies Haralick feature extraction. Brightness metrics include mean, variance, and distribution analysis. Spatial patterns are characterized through coherence and clustering measurements. All methods are deterministic and reproducible. Analysis performed by Multimodal Institute's computational imaging systems.

REFERENCES

[1] Arnaud Quercy (2025). Bb Major - Research on Harmony - Variations 7 — Catalog raisonné. <https://arnaudquercy.art/en/catalogue-raisonne/AQC0890.html>

[2] Quercy, A. (2025). Bb Major - Research on Harmony - Variations 7 - Gallery. https://artquamanima.com/en/artworks/2025/11/bb-major-research-on-harmony-variations-7_i6q.html

[3] Quercy, A. (2025). Computational Image Analysis Standard - MMIDS-CMP-2025 h <https://multimodal.institute/en/publications/2025/11/mmids-cmp-2025-computational-image-analysis-standard-dg1.html>

EPISTEMIC PROFILE

Claim type computational analysis

Voice third person

Epistemic status empirical measurement

Methodology computational analysis

Certainty high

CHECKSUM (SHA-256)

2edb0f411d5ba07429685919a78575ab128dd5dad589cda506ffc1e8b-d5292b

Artist Arnaud Quercy

Date 2025

Collection Synesthetic Explorations

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